

## **REMARKS**

In view of the following discussion, Applicant respectfully requests reconsideration and allowance of the pending claims in the above-identified patent application. Applicant has amended claims 1 and 36-41, and canceled claims 3 and 18 herein. Applicant submits that amended claim 1 is in condition for allowance. Additionally, claims 2, 4-17, and 19-41 depend from claim 1 and each recites additional patentable subject matter. Accordingly, Applicant believes that all of the claims now pending as amended herein are in allowable form. No new matter has been added by way of these amendments, as support for the amendments can be found in the specification as filed.

It is to be understood that Applicant does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter, as recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing this response.

### **Rejections under 35 U.S.C. § 112**

At page 2 of the Office Action, the Examiner rejected claim 21 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, alleging that the claims contain subject matter not described in the specification at the time the invention was filed. For the reasons that follow, Applicant respectfully traverses the rejection.

Claim 21 requires that "the ratio of the active surface of the detector to the active surface area of the microlens is adjustable in order to fix light strength and resolution power through the pinhole diaphragm," and from claim 20 that "pinhole diaphragms disposed behind the microlenses . . . positioned such that at least one pinhole diaphragm is assigned to each microlens." Applicant's specification provides, at paragraph [0098], that "[a]ccording to the size of the photosensitive pixels, covering of the detector array with a pinhole array can be necessary. This increases the resolution power but reduces the sensitivity/transmission of the arrangement because of the smaller detector surface area." In addition, paragraph [00100] states the following: "[w]ithin the scope of the present invention, pinhole diameters which are deemed sensible and hence desired, are from 1  $\mu\text{m}$  to 10  $\mu\text{m}$ ." These passages indicate, for example and not by way of limitation, that Applicant contemplated using different sized pinhole diaphragms to control the amount of light received by the detectors, thereby effectively limiting the active

surface area of the detectors. Given that claim 21 recites the ratio of the active surface area of the detector to the active surface area of the microlens, any change to the active surface area of the detectors will change this ratio. And, because changing the size of the diameters of the pinhole diaphragms is disclosed within a specified range, the ratio is adjustable, as claimed in claim 21. With the foregoing in view, the rejection is traversed and the Examiner is respectfully requested to withdraw the rejection.

At page 2 of the Office Action, the Examiner rejected claims 1, 2, 30, and 35-41 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner alleged that certain terms are not defined in either the claim or the specification. Claim 1 has been amended herein, removing the terms to which the Examiner objected. The Examiner also rejected claim 1 because of the term “pitch.” However, pitch is defined in the specification. The pitch “p” indicates the width of the optical channels, as shown in Fig. 1 and as discussed at paragraph [0093] of Applicant’s specification.

At page 3 of the Office Action, the Examiner objected to the term “slightly” in claim 2. Claim 3, not claim 2 as alleged by the Examiner, recited the term slightly. Claim 3 has been canceled herein. Also at page 3, the Examiner objected to the terms “greater” and “spacing” in claim 30. The terms greater and spacing are defined at paragraph [00114] of Applicant’s specification, and as demonstrated in Figs. 9d and 9e, showing varying dispositions of the plurality of pixels within an optical channel. Thus, the specification provides a standard for ascertaining the requisite degree to construe claim 30. Accordingly, the Examiner is respectfully requested to withdraw the subject rejection.

At page 4 of the Office Action, the Examiner rejected claims 36-41 for reciting the term “operable for.” Applicant has amended claims 36-41 to remove the subject phrase. The Examiner also rejected claims 35-41 as “use” claims, alleging that the claims do not recite further limitations. Although, as filed, original claims 35-41 recited uses, those claims were amended in the preliminary amendment dated June 6, 2006. As amended, claims 35-41 are not use claims and each recites additional patentable features over the base claim.

In view of the above, Applicant submits that the § 112 rejections have been overcome, and the Examiner is respectfully requested to withdraw the rejections.

### **Rejections under 35 U.S.C. § 102**

At page 4 of the Office Action, the Examiner rejected claims 1, 2, 8, 11-13, 15, 19, and 27-29 under 35 U.S.C. § 102(e) as being anticipated by US Patent Appl. No. 2006/0072029 to Miyatake, et al (hereinafter "Miyatake"). Applicant respectfully traverses the rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631; 2 USPQ2d 1051, 1053 (Fed.Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236; 9 USPQ2d 1913, 1920 (Fed.Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831; 15 USPQ2d 1566 (Fed.Cir. 1990).

Independent claim 1 has been amended herein to incorporate the features of claims 3 and 18, which have been canceled. As amended, claim 1 requires that "the pitch of the microlenses differs from the pitch of the detectors in order to ensure a different inclination of the optical axes for the individual channels and wherein at least a part of the microlenses are anamorphic lenses which are different for each individual channel."

Miyatake does not disclose the use of anamorphic lenses, and therefore it does not anticipate, either expressly or inherently, claim 1 of the instant invention. Furthermore, there is a separate, second basis that sufficiently traverses the rejection. Specifically, Miyatake does not disclose that the pitch of the detectors differs from the pitch of the microlenses. This structure is one manner in which, by way of example only, Applicant achieves the different inclinations of each optical channel, which is also not disclosed by Miyatake. Accordingly, either basis separately distinguishes the prior art, and the Examiner is respectfully requested to withdraw the rejection.

Each of claims 2, 8, 11-13, 15, 19, and 27-29 depends from independent claim 1, includes all the elements of claim 1, and recites additional patentable features. As claim 1 is not anticipated by Miyatake, each of the subject dependent claims is also allowable under 35 U.S.C. § 102.

### **Rejections under 35 U.S.C. § 103**

Applicant now discusses the Examiner's rejection of claims 3-7, 9, 10, 14, 16-18, 20, 22-26, and 31-34 under 35 U.S.C. § 103(a). The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2141. Establishing a *prima facie* case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. The key to supporting a rejection under 35 U.S.C. § 103 is the clear articulation of the reasons why the claimed invention would have been obvious. The analysis supporting such a rejection must be explicit. “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), cited with approval in *KSR Int’l Co. v. Teleflex, Inc.*, 126 S. Ct. 2965 (2006); see MPEP § 2141.

At page 8 of the Office Action, the Examiner rejected claims 3, 4, 9, 10 and 17 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent No. 6,141,048 to Meyers (hereinafter “Meyers”). Applicant respectfully traverses the Examiner's rejection. Claim 3 has been canceled and its limitations have been incorporated into claim 1. The Examiner alleges that Miyatake discloses all the elements of claim 1 as filed and that Meyers supplies the teaching that the pitch of the microlenses differs from the pitch of the detectors, as recited in claim 3 as filed (but now found in claim 1 as amended). Miyatake, the primary reference, does not disclose all elements of amended claim 1, and Meyers does not cure this deficiency. For example, neither Miyatake nor Meyers discloses anamorphic lenses. Thus, claim 1 is not obvious over the cited art even if the amendments were combined, which Applicant does not concede is proper. As claims 4, 9, 10 and 17 each depend from claim 1, contain all limitations thereof, and each such claim recites additional patentable features, the subject claims are not obvious under 35 U.S.C. § 103. Accordingly, Applicant respectfully requests that the § 103 rejection of claims 1, 4, 9, 10 and 17 be withdrawn.

At page 12 of the Office Action, the Examiner rejected claim 5 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent No. 5,521,725 to Beeson et al. (hereinafter “Beeson”). At page 13 of the Office Action, the Examiner rejected claims 6, 7, 20, 22, 23 and 26 as being obvious under 35 U.S.C. § 103 over Miyatake in view of the Applicant’s Admitted Prior Art (hereinafter “AAPA”). At page 17 of the Office Action, the Examiner rejected claims 14 and 16 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent Appl. No. 2005/0041134 to Takayama (hereinafter “Takayama”). As discussed above, claim 1 has been amended to require anamorphic lenses, and to require that the pitch of the detectors differs from the pitch of the microlenses. The Examiner has not alleged that Beeson, Takayama, or AAPA discloses anamorphic lenses or that the pitch of the detectors differs from the pitch of the microlenses as required by claim 1, and none of those references, in fact, discloses those features. Applicant does not concede that the teachings that the Examiner alleges are admitted prior art are, in fact, prior art. For the sake of argument, however, none of AAPA, Beeson or Takayama cures the deficiencies of Miyatake. As each of the subject claims contains all limitations of claim 1, and recites additional patentable features, the subject claims are not obvious under 35 U.S.C. § 103. Accordingly, the Examiner is respectfully requested to withdraw the § 103 rejections of claims 5-7, 14, 16, 20, 22, 23 and 26.

At page 19, the Examiner rejected claim 18 as being obvious under 35 U.S.C. § 103, over Miyatake in view of US Patent Appl. No. 2003/0214898 to Ogata et al. (hereinafter “Ogata”), alleging that Ogata discloses the use of anamorphic lenses, in combination with the features recited by Miyatake, for the “purpose of providing a larger field of view with a lens that is roughly the same physical size.” The Examiner also alleges that Ogata is in a similar field of endeavor. Applicant respectfully disagrees for the reasons that follow.

Ogata is non-analogous art to the Applicant’s field of endeavor. Ogata discloses an image pickup device, which at first blush, might seem to be within a similar field. However, closer scrutiny reveals that it is not.

To rely on a reference under 35 U.S.C. § 103, the reference must be analogous prior art. *See* MPEP § 2141.01(a). A reference is considered analogous prior art if the reference is either in the field of Applicants’ endeavor or, if the reference is reasonably pertinent to the particular problem with which the inventor was concerned. *Id.* A reference is pertinent if, even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the

matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. *See id.*, citing *Wang Laboratories v. Toshiba Corp.*, 993 F.2d 858 (Fed.Cir. 1993). Furthermore, when determining whether a reference is analogous, the Examiner cannot look at isolated teachings of the prior art without considering the over-all context within which those teachings are presented. *In re Pagliaro*, 657 F.2d 1219, 1225 (Cust & Pat.App., 1981). Thus, the Examiner must consider each reference as a whole and determine if the reference as a whole is concerned with problems associated with the pending application. *Id.* (emphasis added).

Therefore, a reference can be analogous art if it is in either the same field of endeavor as the present application, or if the reference is reasonably pertinent to the particular problem. As to the former, the image pick up device of Ogata is not in the same field of endeavor as claimed by the Examiner. Ogata's field of endeavor is an optical pick up drive for an optical disk drive. In other words, Ogata is concerned with bouncing a laser beam off a recording media, such as a CD or a DVD, to read the information contained thereon (see paragraphs [0002] and [0008]-[0012] of Ogata). Applicant's invention is an apparatus for capturing an image, e.g., a digital camera. This is far afield to reading data from a CD-ROM – indeed, the optical characteristics associated with reading digital 1s and 0s from a CD-ROM are radically different from the optical characteristics associated with detecting the details of a full color scene, which can have infinite variations from one scene to the next. Thus, Ogata is not in the same field of endeavor as the subject claims of the instant application.

As to the latter category, the question is whether Ogata is reasonably pertinent to the particular problem of concern to Applicant. Under this analysis, it is helpful to consider the similarities in structure. *See* MPEP 2141.01(a); *In re Ellis*, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973) (The structural similarities and functional overlap between the structural gratings shown by one reference and the shoe scrapers of the type shown by another reference were readily apparent, and therefore the arts to which the reference patents belonged were reasonably pertinent to the art with which appellant's invention dealt (pedestrian floor gratings)).

Here, Ogata has a light source, a second semiconductor laser, that directs light through a lens to adjust an angle of divergence, which is subsequently reflected off the storage media and read by a photodetector (see Figs. 62A-62C, and paragraphs [0018], and [0108] of Ogata). This is a structure that is unlike Applicant's invention. Applicant's structure, by way of one example

only, regards environmental incident light through a microlens, employing a prism-like effect to redirect light onto an active surface area of a detector (and not to control the divergence of a laser beam). In other words, the lenses change the optical axes of incident light, sometimes in conjunction with other components, to enlarge a field of view and to allow for a smaller focal construction (see paragraphs [0001], [0011]-[0019], and particularly, [0037]-[0041] of Applicant's specification). This allows a further miniaturization of the camera proportional to the image to be recognized. The subject matter also allows individual channels to have different inclinations of their respective optical axes, which in turn allows the adjustment of the ratio of the field of view to the field of image. Thus, these are structures unlike those in Ogata and solve problems clearly un contemplated by Ogata. Specifically, Ogata is not concerned with using optics to adjust a field of view of an image taking apparatus, nor with reducing the overall size of the apparatus. Therefore, there are no structural similarities, nor any functional overlap contemplated by Ogata and Applicant in their respective fields. Absent any similarities, the "particular problems" associated with are not "reasonably pertinent to one another." Therefore, Ogata is non-analogous art and is not available as a reference against Applicant. Accordingly, no rejection citing Ogata should be maintained. The rejection is therefore traversed and the Examiner is respectfully requested to withdraw the § 103 rejection.

At page 19 of the Office Action, the Examiner rejected claim 24 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent Appl. No. 2004/0218283 to Nagaoka et al. (hereinafter "Nagaoka"). At page 20 of the Office Action, the Examiner rejected claim 25 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent No. 7,196,728 to Campbell et al. (hereinafter "Campbell"). At page 21 of the Office Action, the Examiner rejected claim 31 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent No. 6,765,617 to Tangen et al. (hereinafter "Tangen"). At page 22 of the Office Action, the Examiner rejected claim 32 as being unpatenable under 35 U.S.C. § 103 as being obvious over Miyatake in view of US Patent No. 5,466,926 to Sasano et al. (hereinafter "Sasano"). At page 23 of the Office Action, the Examiner rejected claim 33 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent Appl. No. 2004/0201890 to Crosby (hereinafter "Crosby"). At page 24 of the Office Action, the Examiner rejected claim 34 as being obvious under 35 U.S.C. § 103 over Miyatake in view of US Patent No. 5,543,942 to Mizuguchi et al. (hereinafter "Mizuguchi"). The rejections are respectfully traversed for the following reasons.

Each of claims 24, 25 and 31-34 depends from independent claim 1 and includes all the features of claim 1. As discussed above, Miyatake, the primary reference, does not disclose all the features of claim 1. And, none of the secondary references (Nagaoka, Campbell, Tangen, Sasano, Crosby, and Mizuguchi) cited above cures the deficiencies of Miyatake, namely, the lack of anamorphic lenses and that the pitch of the detectors is different than the pitch of the microlenses. As each of the subject claims contains all limitations of claim 1, and each recites additional patentable subject matter, the subject claims are not obvious under 35 U.S.C. § 103. Accordingly, each of claims 24, 25 and 31-34 is patentable and Applicant respectfully requests that the § 103 rejection of claims 24, 25 and 31-34 be withdrawn.

### **Conclusion**

In view of the foregoing, Applicant submits that all claims are now in condition for allowance, and reconsideration of this application and claims are respectfully requested. If the Examiner believes that there are unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Matthew Dernier, Esq., at (732) 634-7634 so that appropriate arrangements can be made for the resolution of such issues as expeditiously as possible.

Early and favorable action is earnestly solicited. In the event there are any fees due and owing in connection with this matter, please charge same to our Deposit Account No. 11-0223.

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